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TO:	Examiner Ajay M. Bhatia	FROM:	Edward J. Brooks III
FAX:	(571) 273-3906	DATE:	June 8, 2010

You should receive **11** pages including cover sheet

Applicant:	Ludmila Cherkasova	Confirmation No.	9816
Serial No.:	10/601,992	Examiner:	Ajay M. Bhatia
Filed:	June 23, 2003	Art Unit:	2145
		Docket:	305.0110001

Title: COST AWARE ADMISSION CONTROL FOR STREAMING MEDIA SERVER

Greetings Examiner Bhatia,

Thank you again for discussing the present case with me at length yesterday. Claim 3 is corrected per our telephone call today. I believe the proposed set of claims and specification amendment should enable us to move the present case forward to allowance. Please share with me if you see any items hindering the same.

If you have any questions or concerns regarding this matter, please feel free to contact me, Edward J. Brooks III (Jay), at (612) 236-0120 or brooks@bipl.net. Thank you in advance for your time and assistance!

Yours truly,

Edward J. Brooks III
Reg. No. 40,925

1221 Nicollet Avenue, Suite 500, Minneapolis, MN 55403 Telephone: 612-659-9340 Fax: 612-659-9344

Rev. 01/08

Application No.	:	10/601,992	Confirmation No.:	9816
Applicant	:	Ludmila Cherksova		
Filed	:	June 23, 2003		
TC/A.U.	:	2145		
Examiner	:	Ajay M. Bhatia		
Docket	:	200311046-1		
Customer No.	:	022879		

MS AMENDMENT
Commissioner for Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

PROPOSED CLAIM REVISIONS IN VIEW OF APPEAL DECISION:
Decided: April 12, 2010

Dear Examiner Bhatia:

In response to Appeal Decision of April 12, 2010, please amend the above-identified application as follows:

Amendments to the Specification begin on pg. 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 3 of this paper.

Amendments to the Specification

Specification

Please delete paragraph [0157].

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims Involved in the Appeal of Application Serial No. 10/601,992

1. (Currently Amended) A method for managing admission of requests to a streaming media server, the method comprising:

receiving a new request for a streaming media file to be served by a streaming media server;

performing a resource availability check for the streaming media server to determine whether the streaming media server has sufficient available resources to service the new request, wherein performing said resource availability check includes using a segment-based memory model to determine whether at least a portion of the requested streaming media file is in the streaming media server's memory; and

performing a quality of service guarantee check for the streaming media server to determine whether acceptance of the new request will violate, at any point in the future, a desired quality of service provided by the streaming media server for any previously accepted requests.

2. (Canceled)

3. (Currently Amended) The method of claim 1 [[2]] further comprising:

determining from the segment-based memory model a cost associated with serving the requested streaming media file from the streaming media server.

4. The method of claim 1 wherein said resource availability check comprises:

determining a cost associated with serving the requested streaming media file from the streaming media server.

5. The method of claim 4 wherein the cost comprises:

a cost of serving the requested streaming media file either from memory or from disk.

6. The method of claim 1 wherein said resources comprise memory resources and disk resources.

7. The method of claim 1 wherein said sufficient available resources to service the new request comprises sufficient resources available so as not to overload the streaming media server.

8. The method of claim 1 wherein said desired quality of service comprises real-time delivery of streaming media files requested by said previously accepted requests.

9. The method of claim 1 further comprising:

if determined that the streaming media server has sufficient available resources to service the new request and determined that acceptance of the new request will not violate, at any point in the future, said desired quality of service provided by the streaming media server for any previously accepted requests, then the streaming media server serving the requested streaming media file for said new request.

10. The method of claim 1 further comprising:

if determined that the streaming media server does not have sufficient available resources to service the new request or determined that acceptance of the new request will violate, at any point in the future, said desired quality of service provided by the streaming media server for any previously accepted requests, then rejecting the new request for service by the streaming media server.

11. A method for managing admission of requests to a media server, the method comprising:

receiving a new request for a streaming file to be served by a media server;

determining a cost to the media server for serving the requested streaming file,

wherein the cost corresponds to the media server's resources to be consumed in serving the requested streaming file, and wherein said determining said cost comprises

determining a segment-based memory model that identifies content of the media server's memory as of a time that the new request is received, and

using the segment-based memory model to determine whether at least a portion of the requested streaming file is in the media server's memory; and

determining, based at least in part on the cost, whether to admit the new request for service by the media server.

12. (Canceled)

13. The method of claim 11 wherein the cost comprises:

a cost of serving the requested streaming file from memory if determined that the requested streaming file is in the media server's memory and a cost of serving the requested streaming file from disk if determined that the requested streaming file is not in the media server's memory.

14. The method of claim 11 wherein said determining whether to admit the new request for service by the media server comprises:

performing a resource availability check for the media server to determine whether the media server has sufficient available resources to service the new request.

15. The method of claim 14 wherein said sufficient available resources to service the new request comprises sufficient resources available so as not to overload the media server.

16. The method of claim 14 wherein said determining whether to admit the new request for service by the media server further comprises:

performing quality of service guarantee check for the media server to determine whether acceptance of the new request will violate, at any point in the future, a desired quality of service provided by the media server for any previously accepted requests.

17. A system comprising:

server having a memory, wherein said server is operable to serve at least one streaming file to clients communicatively coupled thereto; and

an admission controller operable to receive a new request for a streaming file to be served by said server, determine a cost to the server for serving the requested streaming file, wherein the cost corresponds to the server's resources to be consumed in serving the requested streaming file, and determine, based at least in part on the cost, whether to admit the new request for service by the server;

wherein said admission controller is further operable to determine a segment-based memory model that identifies content of the server's memory as of a time that the new request is received, and said admission controller is operable to use the segment-based memory model to determine whether at least a portion of the requested streaming file is in the server's memory.

18. (Canceled)

19. The system of claim 17 wherein the cost comprises:

a cost of serving the requested streaming file from memory if determined that the requested streaming file is in the server's memory and a cost of serving the requested streaming file from disk if determined that the requested streaming file is not in the server's memory.

20. The system of claim 17 wherein said admission controller is further operable to perform a resource availability check for the server to determine whether the server has sufficient available resources to service the new request.

21. The system of claim 20 wherein said sufficient available resources to service the new request comprises sufficient resources available so as not to overload the server.

22. The system of claim 17 wherein said admission controller is further operable to perform quality of service guarantee check for the server to determine

whether acceptance of the new request will violate, at any point in the future, a desired quality of service provided by the server for any previously accepted requests.

23. A method comprising:

receiving, at a time T_{cur}, a new request for a streaming file to be served by a media server;

creating a segment-based model of the media server's memory as of time T_{cur}; and

based at least in part on the segment-based model of the media server's memory, determining whether to accept the received request for service by the media server.

24. The method of claim 23 wherein said segment-based model of the media server's memory comprises (a) identification of unique segments of streaming files previously accessed by clients of the media server and (b) identification of corresponding timestamps of most recent accesses of each unique segment.

25. The method of claim 23 wherein said determining whether to accept the received request for service by the media server comprises:

determining whether the received request can be serviced by the media server without overloading the media server.

26. The method of claim 23 wherein said determining whether to accept the received request for service by the media server comprises:

determining a cost to the server for serving the requested streaming file, wherein the cost corresponds to the amount of the media server's resources to be consumed in serving the requested streaming file.

27. The method of claim 23 wherein said determining whether to accept the received request for service by the media server comprises:

performing a resource availability check for the media server to determine whether the media server has sufficient available resources to service the new request.

28. The method of claim 23 wherein said determining whether to accept the received request for service by the media server comprises:

performing quality of service guarantee check for the media server to determine whether acceptance of the new request will violate, at any point in the future, a desired quality of service provided by the media server for any previously accepted requests.

29. (Currently Amended) A non-transitory computer readable medium having computer executable instructions stored thereon which are executed by a processor to cause a computing device to perform a method, ~~Computer-executable software stored to a computer-readable medium, the computer-executable software~~ the method comprising:

~~code for~~ creating a segment-based model of a media server's memory; and

~~code for~~ determining whether to serve a requested streaming file from the media server based at least in part on the segment-based model of the media server's memory.

30. (Currently Amended) The computer readable medium ~~computer-executable software code~~ of claim 29, the method further comprising:

~~code for~~ receiving a request for said streaming file.

31. (Currently Amended) The computer readable medium ~~computer-executable software code~~ of claim 30, the method further comprising:

~~code,~~ responsive to receiving said request, ~~for~~ determining whether to accept the request for service by the media server.

32. (Currently Amended) The computer readable medium ~~computer-executable software code~~ of claim 31 wherein ~~said code for~~ determining whether to accept the request for service by the media server comprises:

~~code for~~ determining whether the request can be serviced by the media server without overloading the media server.

33. (Currently Amended) The computer readable medium ~~computer-executable software code~~ of claim 29 wherein said segment-based model of the media server's memory comprises (a) identification of unique segments of streaming files previously accessed by clients of the media server and (b) identification of corresponding timestamps of most recent accesses of each unique segment.

34. (Currently Amended) The computer readable medium ~~computer-executable software code~~ of claim 29 wherein ~~said code for~~ determining whether to serve a requested streaming file from the media server comprises:

~~code for~~ determining a cost to the media server for serving the requested streaming file, wherein the cost corresponds to the amount of the media server's resources to be consumed in serving the requested streaming file.

35. (Currently Amended) The computer readable medium ~~computer-executable software code~~ of claim 29 wherein ~~said code for~~ determining whether to serve a requested streaming file from the media server comprises:

~~code for~~ performing a resource availability check for the media server to determine whether the media server has sufficient available resources to service the new request.

36. (Currently Amended) The computer readable medium ~~computer-executable software code~~ of claim 29 wherein ~~said code for~~ determining whether to serve a requested streaming file from the media server comprises:

~~code for~~ performing quality of service guarantee check for the media server to determine whether acceptance of the new request will violate, at any point in the future, a desired quality of service provided by the media server for any previously accepted requests.

37. A cost-aware admission control system comprising:

means for receiving, at a time T_{cur}, a new request for a streaming file to be served by a media server;

means for creating a segment-based model of the media server's memory as of time T_{cur}; and

means for determining, based at least in part on the segment-based model of the media server's memory, whether to accept the received request for service by the media server.

38. The cost-aware admission control system of claim 37 wherein said segment-based model of the media server's memory comprises (a) identification of unique segments of streaming files previously accessed by clients of the media server and (b) identification of corresponding timestamps of most recent accesses of each unique segment.

39. The cost-aware admission control system of claim 37 wherein said means for determining whether to accept the received request for service by the media server comprises:

means for determining whether the received request can be serviced by the media server without overloading the media server.

40. The cost-aware admission control system of claim 37 wherein said means for determining whether to accept the received request for service by the media server comprises:

means for determining a cost to the server for serving the requested streaming file, wherein the cost corresponds to the amount of the media server's resources to be consumed in serving the requested streaming file.

41. The method of claim 1 wherein said performing said quality of service guarantee check comprises:

performing said quality of service guarantee check even when determined by said resource availability check that the streaming media server has sufficient available resources to service the new request.

42. The system of claim 17 wherein said admission controller determines the cost to the server for serving the requested streaming file based at least in part on the determined segment-based memory model.